

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Not for submission under 37 CFR 1.99)

Application Number 08978636

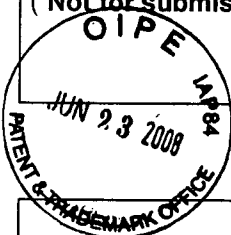
Filing Date 1997-11-25

First Named Inventor Rabbani

Art Unit 1635

Examiner Name A. Bowman

Attorney Docket Number Enz-53-D3

**U.S. PATENTS**

Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
/AB/	1	6538107		3/25/03	Hinuma	
	2	5736387		4/7/98	Paul	
	3	5734039		3/31/98	Calabretta	
	4	5712384		1/27/98	Symonds	
	5	5693463		12/2/97	Edwards	
	6	5646032		7/8/97	ter Meulen	
	7	5633152		5/27/97	McKnight	
	8	5604118		2/18/97	Giri	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

	9	5587308		12/24/96	Carter	
	10	5583020		12/10/96	Sullivan	
	11	5521291		5/28/96	Curiel	
	12	5480792		1/2/96	Buechler	
	13	5413999		5/9/95	Vacca	
	14	5288609		2/22/94	Engelhardt	
	15	5260433		11/9/93	Engelhardt	
	16	5241060		8/31/93	Engelhardt	
	17	5166320		11/24/92	Wu	
	18	5128256		7/7/92	Huse	
	19	4843122		6/27/89	Stavrianopoulos	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

	20	4716112		12/29/87	Panayotatos	
	21	4711955		12/8/87	Ward	
	22	4795706		1/3/89	Hsiung	
	23	4707440		11/17/87	Stavrianopoulos	
	24	4687732		8/18/87	Ward	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² i	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	WO9526200			10/5/95	Williams		<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

	2	WO9508635			3/30/95	Craig		<input type="checkbox"/>
	3	WO9506129			3/2/95	Craig		<input type="checkbox"/>
	4	EP0285057			10/5/88	Engelhardt		<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	VERMA et al. "Gene therapy -- promises, problems and prospects" Nature 389: 239-242. 1997	<input type="checkbox"/>
	2	FISHER "Neural precursor cells: applications for the study and repair of the central nervous system" Neurobiology of Disease 4: 1-22. 1997	<input type="checkbox"/>
	3	BENNET et al. "Pharmacology of antisense therapeutic agents" ch 2 in Methods in Molecular Medicine: Antisense Therapeutics Ed. S. Agrawal, Humana Press, Inc. Totowa, NJ 1996	<input type="checkbox"/>
	4	WANG et al., "Delivery of antisense oligodeoxyribonucleotides against the human epidermal growth factor receptor into cultured KB cells with liposomes conjugated to folate via polyethylene glycol" Proc. Natl. Acad. Sci. USA 92: 3318-3322. 1995	<input type="checkbox"/>
	5	THIMME et al., "Mx1 but not MxA confers resistance against tick-borne Dhori virus in mice" Virology 211: 296-301. 1995	<input type="checkbox"/>
	6	SUN et al. "Resistance to human immunodeficiency virus type 1 infection conferred by transduction of human peripheral blood lymphocytes with ribozyme, antisense, or polymeric trans-activation response element constructs" Proc. Natl. Acad. Sci. USA 92: 7272-7276. 1995	<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

7	ROSSI, "Controlled, targeted, intracellular expression of ribozymes: progress and problems" Trends Biotechnol. 13: 301-306. 1995	<input type="checkbox"/>
8	RAMIREZ et al., "Transcriptional inhibition of the Parvovirus Minute virus of mice by constitutive expression of an antisense RNA targeted against the NS-1 transactivator protein" Virology 206: 57-68. 1995	<input type="checkbox"/>
9	PARDRIDGE et al., "Vector-Mediated delivery of a polyamide ("peptide") nucleic acid analogue through the blood-brain barrier in vivo" Proc. Natl. Acad. Sci. USA 92: 5592-5596. 1995	<input type="checkbox"/>
10	MILLER et al. "Targeted vectors for gene therapy" FASEB J. 9: 190-199. 1995	<input type="checkbox"/>
11	LIMJOCO et al. " Resistance to retroviral infection in transgenic and bone marrow chimeric mice containiing Fv4-env-expression hematopoietic cells" Virology 208: 75-83. 1995	<input type="checkbox"/>
12	LEVER "Gene therapy for HIV infection" British Medical Bulletin 51: 149-166. 1995	<input type="checkbox"/>
13	LAU et al. "Retroviral gene transfer into the intestinal epitheLAU et al. "Retroviral gene transfer into the intestinal epithelium" Hum Gene Ther. 6: 1145-1151. 1995	<input type="checkbox"/>
14	BINKLEY et al. "RNA ligands to human nerve growth factor" Nucleic Acids Res. 23: 3198-3205. 1995	<input type="checkbox"/>
15	ALLY et al. "Prevention of autoimmune disease by retroviral-mediated gene therapy" J. Immunol. 155: 5404-5408. 1995	<input type="checkbox"/>
16	AGARWAL et al. "Absorption, tissue distribution and in vivo stability in rates of a hybrid antisense oligonucleotide following oral administration" Biochem. Pharmacol. 50: 571-576. 1995	<input type="checkbox"/>
17	ZHOU et al. "Inhibition of HIV-1 in human T-lymphocytes by retrovirally transduced anti-tat and rev hammerhead ribozymes" Gene 149: 33-39. 1994	<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

18	YU et al. "Progress towards gene therapy for HIV infection" Gene Therapy 1: 13-16 1994	<input type="checkbox"/>
19	VIEILLARD et al. "Blocking of rteroviral infection at a step prior to reverse transcription in cells transformed to constitutively express interferon beta" Proc. Natl. Acad. Sci. USA 91: 2689-2693 1994	<input type="checkbox"/>
20	NICHOLS et al. "A universal nucleoside for use at ambiguous sites in DNA primers" Nature 369: 492-493. 1994	<input type="checkbox"/>
21	JUNKER et al. "Reduction in replication of the human immunodeficiency virus type 1 in human T cell lines by polymerase III-drive transcription of chimeric tRNA-antisense RNA genes" Antisense Res. Dev. 4: 165-172. 1994	<input type="checkbox"/>
22	GRUBER et al. " Efficient tumor cell lysis mediated by a bispecific single chain antibody expressed in Escherichia coli" J. Immunol. 152: 5368-5372. 1994	<input type="checkbox"/>
23	CROOKE "Progress in evaluation of the potential of antisense therapy" Antisense Res. and Development 4: 145-146. 1994	<input type="checkbox"/>
24	VLASSOV et al., "Penetration of oligonucleotides into mouse organism through mucosa and skin" FEBS Lett. 327: 271-274. 1993	<input type="checkbox"/>
25	SCHWARTZ et al. "Construction of a retrotransposition indicator sequence using a neomycin resistance-encoding gene containing a functional intron" Gene 127: 233-236. 1993	<input type="checkbox"/>
26	SANDIG et al. "A phage T7 class-III promoter functions as a polymerase II promoter in mammalian cells" Gene 131: 255-259. 1993	<input type="checkbox"/>
27	PALSSON et al. "Expansion of human bone marrow progenitor cells in a high cell density continuous perfusion system" Biotechnology (NY) 11: 368-372. 1993	<input type="checkbox"/>
28	LISZIEWICZ et al. "Inhibition of human immunodeficiency virus type 1 replication by regulated expression of a polymeric Tat activation response RNA decoy as a strategy for gene therapy in AIDS" Proc. Natl. Acad. Sci. USA 90: 8000-8004 1993	<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

29	LIEBER et al. "Stable high-level gene expression in mammalian cells by T7 phage RNA polymerase" Methods Enzymol. 217: 47-66 1993	<input type="checkbox"/>
30	KOLLER et al. "Large-scale expansion of human stem and progenitor cells from bone marrow mononuclear cells in continuous perfusion cultures" Blood 82: 378-384. 1993	<input type="checkbox"/>
31	KOLLER et al. "Expansion of primitive human hematopoietic progenitors in a perfusion bioreactor system with IL-3, IL-6, and stem cell factor" BioTechnology (NY) 11: 358-363. 1993	<input type="checkbox"/>
32	HOLLIGER et al. ""Diabodies": small bivalent and bispecific antibody fragments" Proc. Natl. Acad. Sci. USA 90: 6444-6448. 1993	<input type="checkbox"/>
33	FISCHER et al. "Nucleo-cytoplasmic transport of U snRNPs: definition of a nuclear location signal in the Sm core domain that binds a transport receptor independently of the m3G cap" EMBO J. 12: 573-583. 1993	<input type="checkbox"/>
34	CRISTIANO et al. "Hepatic gene therapy: adenovirus enhancement of receptor-mediated gene delivery and expression in primary hepatocytes" Proc. Natl. Acad. Sci. USA 90: 2122-2126. 1993	<input type="checkbox"/>
35	COX et al. "Effect of resistance on combination chemotherapy for human immunodeficiency virus infection" Adv. Enzyme Regul. 33: 27-36. 1993	<input type="checkbox"/>
36	ALLAWAY et al. "Synergistic inhibition of HIV-1 envelope-mediated cell fusion by CD4-based molecules in combination with antibodies to gp120 or gp41" AIDS Res. Human Retroviruses 9: 581-587. 1993	<input type="checkbox"/>
37	WAGNER et al. "Influenza virus hemagglutinin HA-2 N-terminal fusogenic peptides augment gene transfer by transferrin-polylysine-DNA complexes: toward a synthetic virus-like gene-transfer vehicle" Proc. Natl. Acad. Sci. USA 89: 7934-7938. 1992	<input type="checkbox"/>
38	TAKEDA et al. "Thermodynamics of Cro protein-DNA interactions" Proc. Natl. Acad. Sci USA 89: 8180-8184. 1992	<input type="checkbox"/>
39	SCZAKIEL "Tat- and Rev-directed antisense RNA expression inhibits and abolishes replication of human immunodeficiency virus type 1: a temporal analysis" J. Virol. 66: 5576-5581. 1992	<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

40	MUZYCZKA "Use of adeno-associated virus as a general transduction vector for mammalian cells" Curr Top Microbiol and Immunol 158: 97-129. 1992	<input type="checkbox"/>
41	IZANT "Chimeric Antisense RNAs" in Gene Regulation: Biology of Antisense RNA and DNA pp 183-195. Raven Press, Ltd. New York 1992	<input type="checkbox"/>
42	HUSSON et al. "Phase I study of continuous-infusion soluble CD4 as a single agent and in combination with oral dideoxyinosine therapy in children with symptomatic human immunodeficiency virus infection" J. Pediatrics 121: 627-633. 1992	<input type="checkbox"/>
43	HARRISON et al. "Inhibition of human immunodeficiency virus-1 production resulting from transduction with a retrovirus containing an HIV-regulated diphtheria toxin A chain gene" Human Gene Therapy 3: 461-469. 1992	<input type="checkbox"/>
44	FANGER et al. "Bispecific antibodies" Crit Rev Immunol 12: 101-124 .1992	<input type="checkbox"/>
45	DUMONTET et al. "[Chemotherapy for human immunodeficiency virus infection. Current status and perspectives]" La Revue de Medecine Intern. 13: 460-464. 1992.	<input type="checkbox"/>
46	CHEN et al. "Inhibition of HIV-1 replication by novel multitarget ribozymes" in Antisense Strategies, Annals NY Acad. Sci. 660: 271-273. 1992	<input type="checkbox"/>
47	BURKLY et al., "Inhibition of HIV infection by a novel CD4 domain 2-specific monoclonal antibody. Dissecting the basis for its inhibitory effect on HIV-induced cell fusion" J. Immunol. 149: 1779-1787. 1992	<input type="checkbox"/>
48	SCZAKIEL et al., "Inhibition of human immunodeficiency virus type 1 replication in human T cells stably expressing antisense RNA" J. Virol 65: 468-472. 1991	<input type="checkbox"/>
49	PILCH et al. "Expression of histone-U1 snRNA chimeric genes: U1 promoters are compatible with histone 3' end formation" Gene Expression 1: 41-53. 1991	<input type="checkbox"/>
50	MCBURNEY et al., "The mouse Pgk-1 gene promoter contains an upstream activator sequence" Nucleic Acids Res. 19: 5755-5761. 1991	<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/Amy Bowman/	Date Considered	09/10/2008
--------------------	--------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

- ☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

- ☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

- ☐ See attached certification statement.
- ☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.
- ☒ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

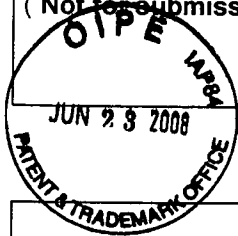
Signature	<i>Cheryl H. Agnis</i>	Date (YYYY-MM-DD)	2008-06-19
Name/Print	Cheryl H Agnis	Registration Number	34086

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Not for submission under 37 CFR 1.99)



Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

U.S. PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² i	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

1	LAURENCE et al. "Induction of chronic human immunodeficiency virus infection is blocked in vitro by a methylphosphonate oligodeoxynucleoside targeted to a U3 enhancer element" J. Virol. 65: 213-219. 1991	<input type="checkbox"/>
2	JOSHI et al., "Inhibition of human immunodeficiency virus type 1 multiplication by antisense and sense RNA expression" J. Virol. 65: 5524-5530. 1991	<input type="checkbox"/>
3	DUBENDORFF et al., "Creation of a T7 autogene. Cloning and expression of the gene for bacteriophage T7 RNA polymerase under control of its cognate promoter" J. Mol. Biol. 219: 61-68. 1991	<input type="checkbox"/>
4	CURIEL et al. "Adenovirus enhancement of transferrin-polylysine-mediated gene delivery" Proc. Natl. Acad. Sci. USA 88: 8850-8854. 1991	<input type="checkbox"/>
5	ZIEVE et al. "Cell biology of the snRNP particles" Crit Rev Biochem Mol Biol 25: 1-46. 1990	<input type="checkbox"/>
6	SCZAKIEL et al., "Specific inhibition of human immunodeficiency virus type 1 replication by RNA transcribed in sense and antisense orientation from the 5'-leader/gag region" Biochem Biophys Res Commun 169: 643-651. 1990	<input type="checkbox"/>
7	MAYEDA et al. "Beta-globin transcripts carrying a single intron with three adjacent nucleotides of 5' exon are efficiently spliced in vitro irrespective of intron position or surrounding exon sequences" Nucleic Acids Res. 18: 4671-4676. 1990	<input type="checkbox"/>
8	KESSLER et al. "Detection of nucleic acids by enzyme-linked immuno-sorbent assay (ELISA) technique: An example for the development of a novel nonradioactive labeling and detection system with high sensitivity" in Advances in Mutagenic Research. Springer Verlag 1: 105-152. 1990	<input type="checkbox"/>
9	HORTON et al. "Gene splicing by overlap extension: tailor-made genes using the polymerase chain reaction" BioTechniques 8: 528-535. 1990	<input type="checkbox"/>
10	FISCHER et al. "An essential signaling role for the m3G cap in the transport of U1 snRNP to the nucleus" Science 249: 786-790. 1990.	<input type="checkbox"/>
11	YUO et al. "A U1 small nuclear ribonucleoprotein particle with altered specificity induces alternative splicing of an adenovirus E1A mRNA precursor" Mol. Cell. Biol. 9: 3429-3437. 1989	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

12	YOSHIMATSU et al. "Control of gene expression by artificial introns in <i>Saccharomyces cerevisiae</i> " <i>Science</i> 244: 1346-1348. 1989	<input type="checkbox"/>
13	WU et al. "Targeting genes: delivery and persistent expression of a foreign gene driven by mammalian regulatory elements in vivo" <i>J. Biol. Chem.</i> 269: 16985-16987. 1989	<input type="checkbox"/>
14	VOS et al. "DNA interstrand cross-links promote chromosomal integration of a selected gene in human cells" <i>Mol. Cell. Biol.</i> 9: 2897-2905. 1989	<input type="checkbox"/>
15	NITTA et al. "Bispecific F (ab') ₂ monomer prepared with anti-CD3 and anti-tumor monoclonal antibodies is most potent in induction of cytolysis of human T cells" <i>Eur. J. Immunol.</i> 19: 1437-1441. 1989	<input type="checkbox"/>
16	LIEBER et al. "High level gene expression in mammalian cells by a nuclear T7-phase RNA polymerase" <i>Nucleic Acids Res.</i> 17: 8485-8493. 1989	<input type="checkbox"/>
17	HORTON et al. "Engineering hybrid genes without the use of restriction enzymes: gene splicing by overlap extension" <i>Gene</i> 77: 61-68. 1989	<input type="checkbox"/>
18	GATERMANN et al. "Introduction of functional artificial introns into the naturally intronless <i>ura4</i> gene of <i>Schizosaccharomyces pombe</i> " <i>Mol. Cell Biol.</i> 9: 1526-1535. 1989	<input type="checkbox"/>
19	NEUMAN DE VEGVAR "Initiation and termination of human U1 RNA transcription requires the concerted action of multiple flanking elements" <i>Nucleic Acids Res.</i> 17: 9305-9318. 1989	<input type="checkbox"/>
20	COTTEN et al., "Ribozyme mediated destruction of RNA in vivo" <i>EMBO J</i> 8: 3861-3866. 1989	<input type="checkbox"/>
21	BEBENEK et al. "Specificity and mechanism of error-prone replication by human immunodeficiency virus-1 reverse transcriptase" <i>J. Biol. Chem.</i> 264: 16948-16956. 1989	<input type="checkbox"/>
22	REFERENCE INTENTIONALLY OMITTED FROM THIS SPACE	<input type="checkbox"/>
		<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

23	SAIKI et al. "Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase." Science 239: 487-491. 1988	<input type="checkbox"/>
24	LEIBOLD et al. "Cytoplasmic protein binds in vitro to a highly conserved sequence in the 5' untranslated region of ferritin heavy- and light-subunit mRNAs" Proc. Natl. Acad. Sci. USA 85: 2171-2175. 1988	<input type="checkbox"/>
25	IZANT et al. "Antisense inhibition of RNA splicing" in Current Communications in Molecular Biology, Cold Spring Harbor Laboratory pp 141-149. 1988	<input type="checkbox"/>
26	DUNN et al. "Targeting bacteriophage T7 RNA polymerase to the mammalian cell nucleus" Gene 68: 259-266. 1988	<input type="checkbox"/>
27	DAHLBERG et al. "The Genes and Transcription of the Major Small Nuclear RNAs" in Structure and Function of Major and Minor Small Nuclear Ribonucleoprotein Particles Birnstiel, ed. Springer Verlag, Heidelberg, pp 38-70. 1988	<input type="checkbox"/>
28	COOK "Synthesis and hybridization of a series of biotinylated oligonucleotides" et al. Nucleic Acids Res. 16: 4077-4095. 1988	<input type="checkbox"/>
29	LEAR et al. "Membrane binding and conformational properties of peptides representing the NH2 terminus of influenza HA-2" J. Biol. Chem. 262: 6500-6505. 1987	<input type="checkbox"/>
30	KOTANI et al. "Nucleotide sequence and expression of the cloned gene of bacteriophage SP6 RNA polymerase" Nucleic Acids Res. 15: 2653-2664. 1987	<input type="checkbox"/>
31	STAERZ et al. "Hybrid hybridoma producing a bispecific monoclonal antibody that can focus effector T-cell activity" Proc. Natl. Acad. Sci. USA 83: 1453-1457. 1986	<input type="checkbox"/>
32	SCHARF et al. "Direct cloning and sequence analysis of enzymatically amplified genomic sequences" Science 233: 1076-1078. 1986	<input type="checkbox"/>
33	OLD et al. "Principles of Gene Manipulation" Blackwell Scientific Publications, London, 1986	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

34	MORRIS et al. "Cloning and expression of the bacteriophage T3 RNA polymerase gene" Gene 41: 193-200. 1986	<input type="checkbox"/>
35	KOZAK "Point mutations define a sequence flanking the AUG initiator codon that modulates translation by eukaryotic ribosomes" Cell 44: 283-292. 1986	<input type="checkbox"/>
36	JABLONSKI et al. "Preparation of oligodeoxynucleotide-alkaline phosphatase conjugates and their use as hybridization probes" Nucleic Acids Res. 14: 6115-6128. 1986	<input type="checkbox"/>
37	ERITJA et al. "Synthesis and properties of oligonucleotides containing 2'-deoxynebularine and 2'-deoxyxanthosine" Nucleic Acids Res 14: 8135-8153. 1986	<input type="checkbox"/>
38	DAVIS et al., "Basic Methods in Molecular Biology" Elsevier, NY 1986	<input type="checkbox"/>
39	ARGOS et al. "The integrase family of site-specific recombinases: regional similarities and global diversity" EMBO J. 5: 433-440. 1986	<input type="checkbox"/>
40	AGRAWAL et al. "Efficient methods for attaching non-radioactive labels to the 5' ends of synthetic oligodeoxyribonucleotides" Nucleic Acids Res. 14: 6227-6245. 1986	<input type="checkbox"/>
41	SAIKI et al., "Enzymatic amplification of beta-globin genomic sequences and restriction site analysis for diagnosis of sickle cell anemia" Science 230: 1350-1354. 1985	<input type="checkbox"/>
42	CHU et al. "In vitro expression of the intron-containing gene for T4 phage thymidylate synthase" J. Biol. Chem. 260: 10680-10688. 1985	<input type="checkbox"/>
43	PERBAL, "A Practical Guide to Molecular Cloning" John Wiley & Sons, New York, 1984	<input type="checkbox"/>
44	MELTON "Efficient in vitro synthesis of biologically active RNA and RNA hybridization probes from plasmids containing a bacteriophage SP6 promoter" et al. Nucleic Acids Res. 12: 7035-7056. 1984	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

45	KALDERON et al., "A short amino acid sequence able to specify nuclear location." Cell 39: 499 1984	<input type="checkbox"/>
46	DAVANLOO et al. "Cloning and expression of the gene for bacteriophage T7 RNA polymerase" Proc. Natl. Acad. Sci. USA 81: 2035-2039. 1984	<input type="checkbox"/>
47	CHU et al. "Intervening sequence in the thymidylate synthase gene of bacteriophage T4" Proc. Natl. Acad. Sci. USA 81: 3049-3053. 1984	<input type="checkbox"/>
48	DUNN et al., "Complete nucleotide sequence of bacteriophage T7 DNA and the locations of T7 genetic elements" J. Mol. Biol. 166: 477-535. 1983	<input type="checkbox"/>
49	MOUNT "A catalogue of splice junction sequences" Nucleic Acids Res. 10: 459-472. 1982	<input type="checkbox"/>
50	MANSEER et al., Human U1 loci: genes for human U1 RNA have dramatically similar genomic environments" Cell: 29: 257-264. 1982	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/Amy Bowman/	Date Considered	09/10/2008
--------------------	--------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

- ☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

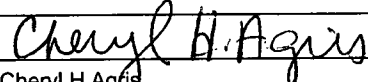
OR

- ☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

- ☐ See attached certification statement.
- ☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.
- ☒ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature		Date (YYYY-MM-DD)	2008-06-19
Name/Print	Cheryl H Agis	Registration Number	34086

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Not for submission under 37 CFR 1.99)



Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

U.S. PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² i	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

1	MANIATIS et al. Molecular Cloning, A Laboratory Manual, Cold Spring Harbor Laboratory Press, 1982	<input type="checkbox"/>
2	RUOSLAHTI et al. "Alignment of biologically active domains in the fibronectin molecule" J. Biol. Chem. 256: 7277-7281. 1981	<input type="checkbox"/>
3	ANDERSON et al. "Structure of the cro repressor from bacteriophage lambda and its interaction with DNA" Nature 290: 754-758. 1981	<input type="checkbox"/>
4	ROYCHOUDHURY et al. "Influence of nucleotide sequence adjacent to duplex DNA termini on 3' terminal labeling by terminal transferase " Nucleic Acids Res. 6: 1323-1333. 1979	<input type="checkbox"/>
5	RIGBY et al. "Labeling deoxyribonucleic acid to high specific activity in vitro by nick translation with DNA polymerase I" J. Mol. Biol. 113: 237-251. 1977	<input type="checkbox"/>
6	RAFESTIN et al. "Purification of N-acetyl D-glucosamine-binding proteins by affinity chromatography" FEBS Letters 40: 62-66. 1974	<input type="checkbox"/>
7	STAVRIANOPOULOS et al. "Mechanism of DNA replication by highly purified DNA polymerase of chicken embryo" Proc. Natl. Acad. Sci. USA 69: 2609-2613. 1972	<input type="checkbox"/>
8	SOEIRO et al. "Competition hybridization by "pre-saturation" of HeLa cell DNA" J. Mol. Biol. 44: 551-562. 1969	<input type="checkbox"/>
9	Definitions for "compound", "polymer", "monomer" on 2005-10-19 from www.cancerweb.ncl.ac.uk	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /AB/

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978636
Filing Date	11/25/97
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	A. Bowman
Attorney Docket Number	Enz-53-D3

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.